

# PEO Ammo Overview



**30 April 2002**

**Presented By:**

**COL(P) Paul S. Izzo**

**Program Executive Officer Ammunition**

**Presented To:**

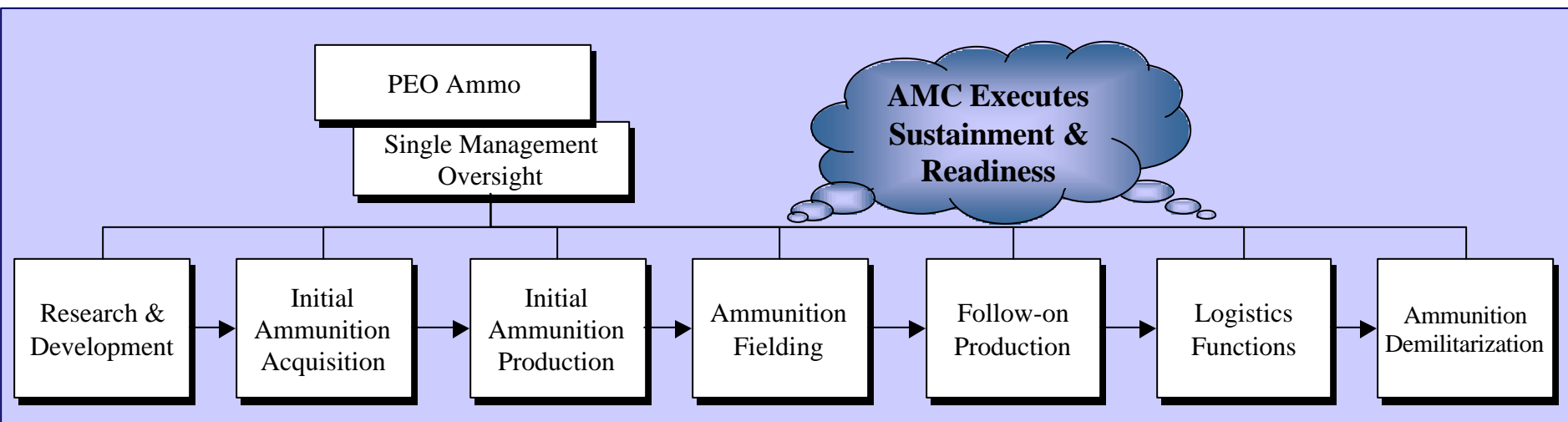
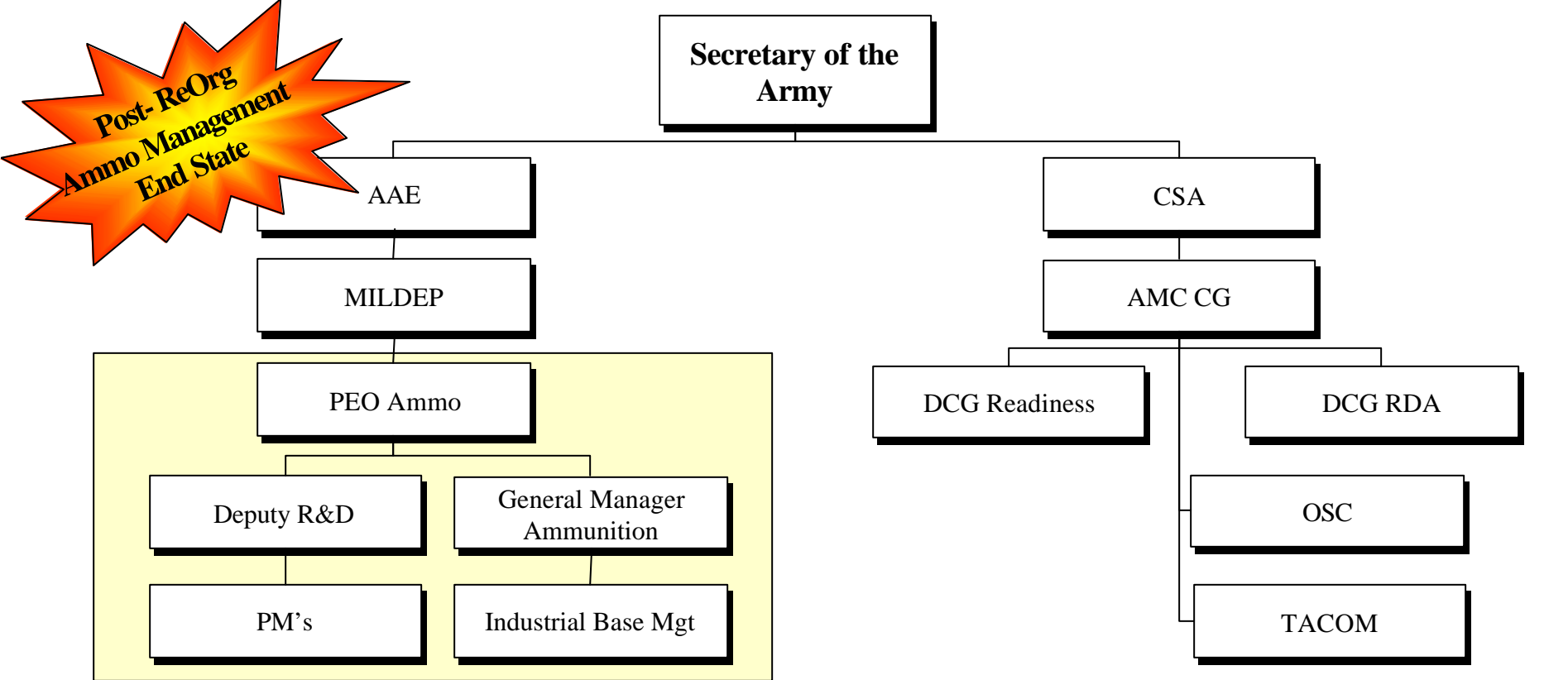
**46<sup>th</sup> Annual NDIA Fuze Conference**



# Bottom Line Up Front

- PEO Ammunition is committed to providing superior ammunition to the soldier
- PEO Ammunition responsible for:
  - ✓ Life-Cycle acquisition management of
  - ✓ conventional ammunition which includes integrating budgets, acquisition strategies, R&D and life-cycle management across all ammunition families.
  - ✓ Single ammunition voice in the budget process
  - ✓ Industrial Preparedness Planning, representing the munitions industrial base.
- PEO Ammunition is located at Picatinny Arsenal
  - ✓ Home of world-class Army R&D facility





**PEO, Ammo/PMs Manage Life Cycle...AMC Responsible for Execution**



# PEO Ammo Organization

ASAALT DASCs

★★  
**PEO Ammunition**

Director – Business  
Director – Programs  
Director – Industrial Base

🏆  
**Deputy for  
Research, Development  
& Production**

🏆  
**General Manager  
Ammunition**

Close Combat Systems

✈️  
Combat Ammo  
Systems Indirect Fire

✈️  
Maneuver Ammo  
System Direct Fire

✈️  
Joint Services

Organic Base  
Operations  
(Ammo Plants)

Demo, Mines,  
MICLIC & Grenades

✳️  
Conventional Ammo  
(Artillery & Mortars)

✳️  
Large Caliber

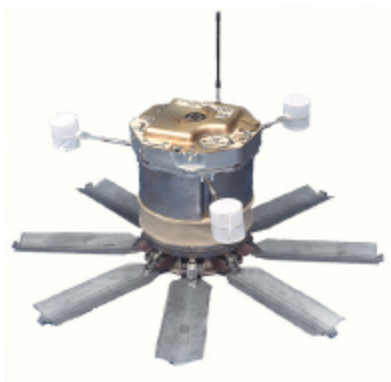
✳️  
DEMIL

✳️  
Excalibur

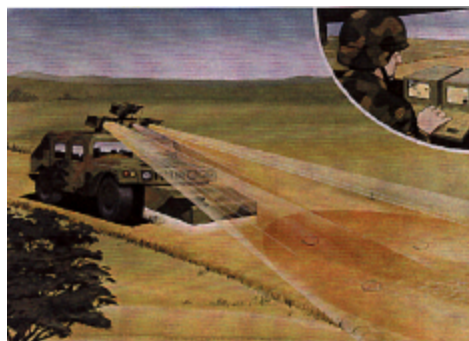
✳️  
Medium Caliber



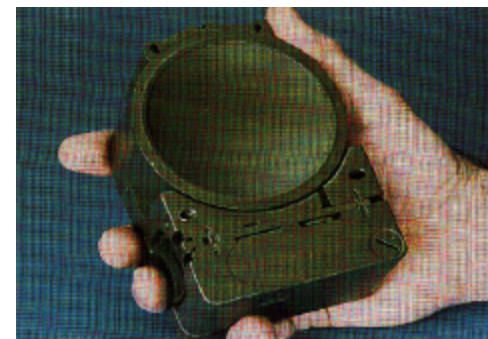
# PM Close Combat Systems



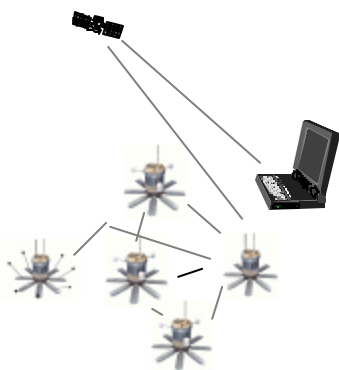
**Hornet**



**Ground Standoff  
Minefield Detection System**



**Selectable Lightweight  
Attack Munition**



**Intelligent Combat Outpost  
(RAPTOR)**



**RAAM/ADAM Mixed  
Projectile (RADAM)**



**VOLCANO**



# PM Combat Ammunition Systems







# PM Maneuver Ammunition Systems

## Direct Fire Products



**Medium Caliber Ammunition**



**Large Caliber Ammunition**



# Lethality Improvements

- Future Ammunition with state-of-the-art technologies
  - ✓ Precision Engagements
  - ✓ Extended Range
  - ✓ Reduced Collateral Damage
  - ✓ Increased Survivability
  - ✓ Reduced Logistics Footprint







# Excalibur

## Mission

- Provides improved fire support through a Precision Guided, Extended Range, fratricide reducing, accuracy enhancing, more lethal family of 155mm projectiles in support of Legacy to Objective forces.

Unitary



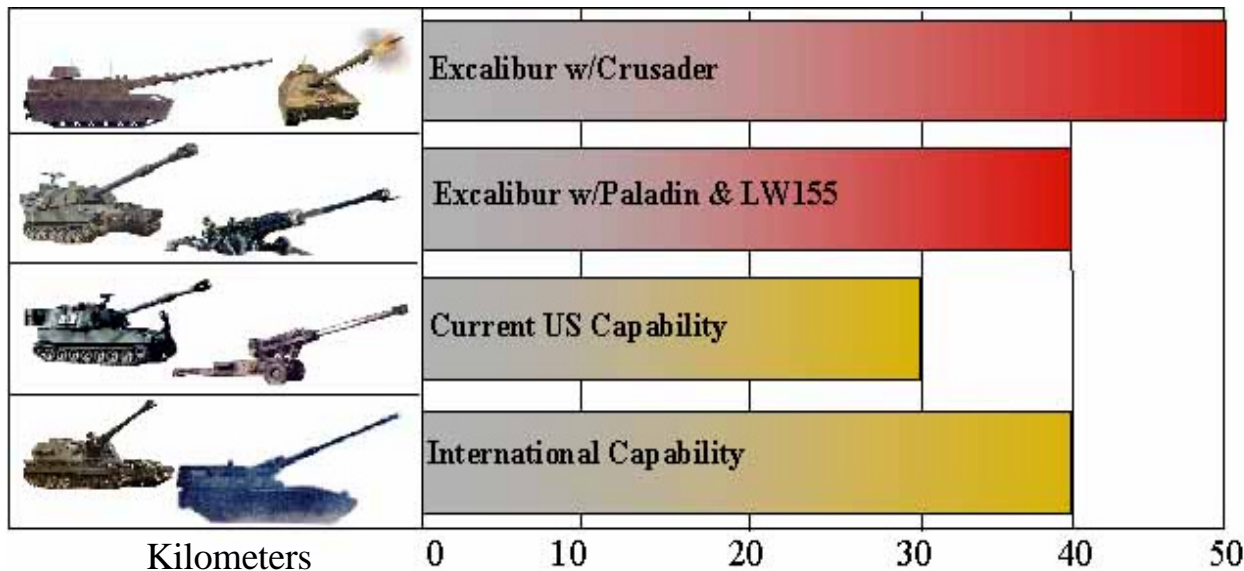
SFM



DPICM



## Artillery Range Overmatch



Launched from Parsippany, an Excalibur w/Crusader could hit the Tappan Zee Bridge Toll Plaza



# Excalibur Capabilities



M549 A1

147 Rounds

- CP, MOUT Scenario
- 20m X 20m Structure
- 10m TLE
- ½ Hr Met
- Range = 20 Km
- Penetrate & Explode Inside Structure



Excalibur

3 Rounds

3 Rounds

Technology carrier for  
Objective Force Precision  
Munitions

Increased accuracy for the  
close battle

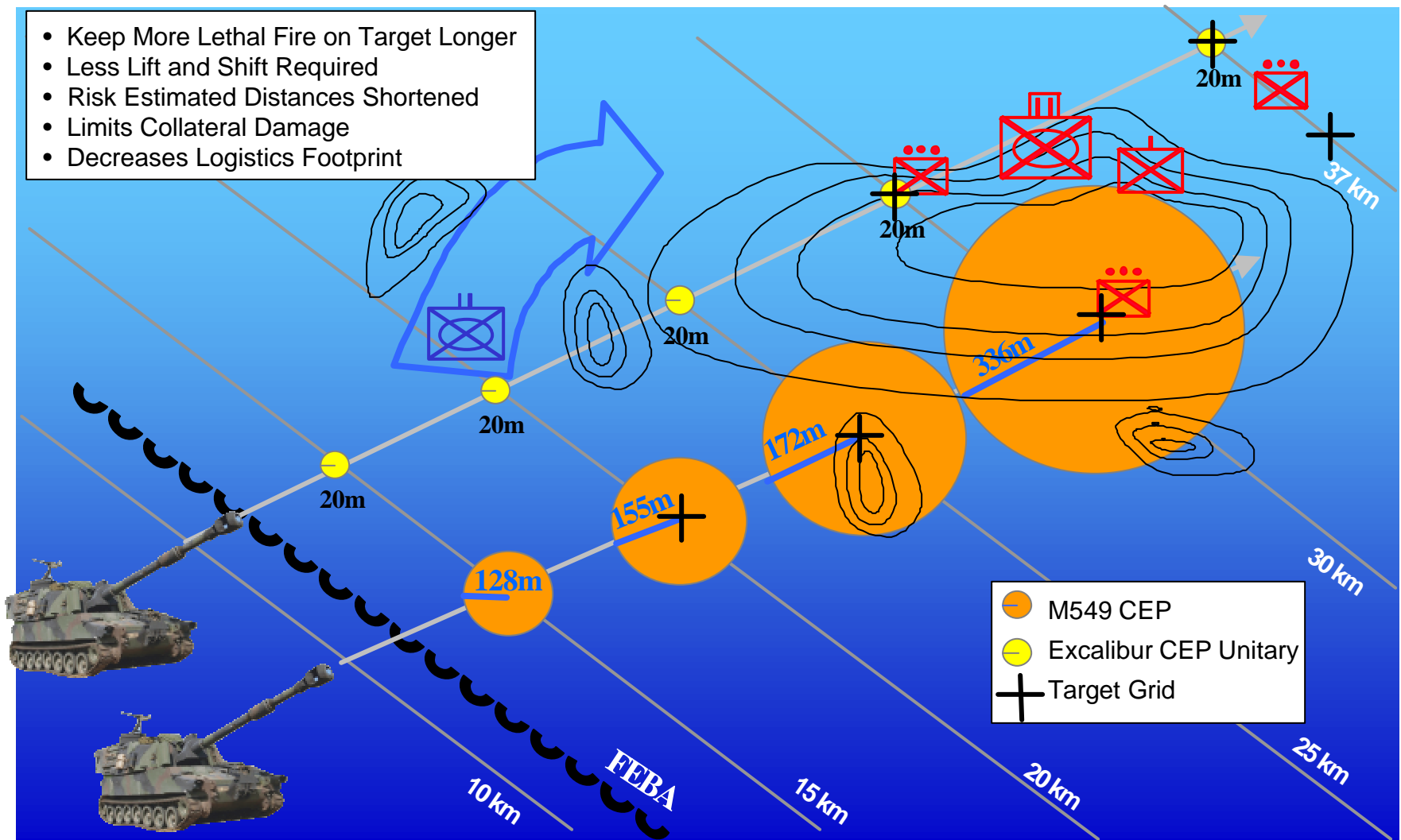
Decreased collateral damage  
area up to 99%

Decreased volume of fire per  
engagement



# Benefits of Accuracy

- Keep More Lethal Fire on Target Longer
- Less Lift and Shift Required
- Risk Estimated Distances Shortened
- Limits Collateral Damage
- Decreases Logistics Footprint





# Precision Guided Mortar Munition (PGMM)

## Today – FY02

### Delivery Vehicles

120 Mortar System

**M934A1**



### Technologies

High Explosive  
Multi-Option Fuze  
Fixed Fins  
Propellant

### Performance

Range: 7.2 km  
Accuracy: 230m CEP  
Weight: 12.7 kg  
Length: 0.72 m

Extended  
Range



Reduced  
Collateral  
Damage

Improved  
Accuracy



Increased  
Lethality



## Tomorrow – FY08

### Delivery Vehicles

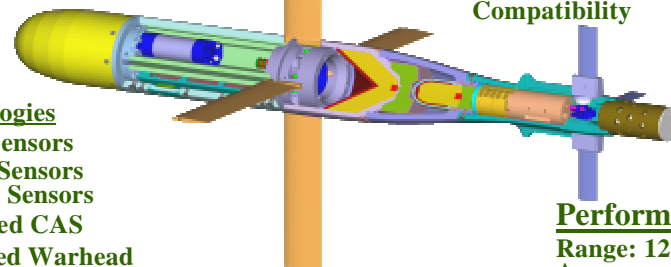
120 Mortar System  
Future Combat Systems

### Key Performance Parameters

Precision  
Lethality  
Range  
Compatibility

### Technologies

Active Sensors  
Passive Sensors  
Inertial Sensors  
Advanced CAS  
Advanced Warhead  
Lightweight Structure



### Performance

Range: 12-15 km  
Accuracy: 1.0m CEP  
Weight: 18 kg  
Length: 1.0 m

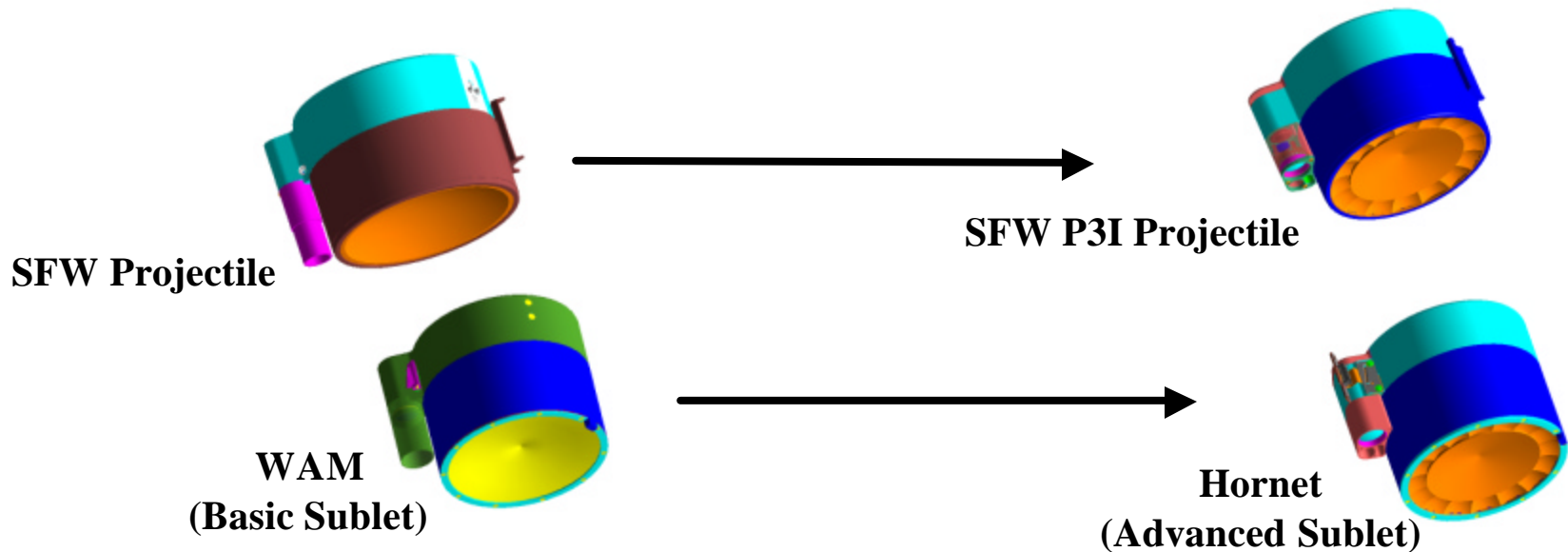
**PGMM XM395**





# Horizontal Technology Insertion of Sensor Fused Weapon (SFW) into Wide Area Munition (WAM)

- The Air Force SFW P3I advanced sensor and warhead technology inserted into WAM



- ✓ Performance increases
- ✓ Commonality of components

- ✓ Proven producibility
- ✓ Significant reduction in cost



# Advanced Sublet Boosts Hornet Performance

- More frequent hits on target
  - ✓ Uses IR laser profilometer to detect target body
- Reduces sensor false alarms
  - ✓ Fuses both passive IR and active IR sensor data to develop fire solution
- Increases performance against suppressed targets and in high solar conditions
  - ✓ Increased passive sensor sensitivity
- Expands capability to soft targets
  - ✓ Employs copper combined effects warhead





# Industrial Base Challenges

- **Munitions Production Base Capacity**
  - ✓ Down 68% Last 10 Years
  - ✓ Currently Underutilized
- **Single Sources**
  - ✓ 71 of 302 Critical Components
- **Minimal Incentives for Contractor Capital Investment**
- **Manufacturing Capability**
  - ✓ Currently Focused on Legacy Systems
  - ✓ Marginal Future Munitions Capacity
- **Surge Capability Virtually Non-Existent**





# Industrial Preparedness Planning

- PEO Providing Centralized Management Of DOD's Organic & Industrial Munitions Production Base
  - ✓ Optimizing Coordination, Communication and Decision Making that affects Requirements & Production
- Establishing:
  - ✓ **Cohesive Strategies, Plans And Policies On The National Ammunition Technology & Industrial Base**
    - Ensure Ability To Support Operational, Surge And Sustainability Requirements
    - Increase Level Of Focus On Lower Tier Suppliers
    - Promote Disciplined Approach To Modernization
  - ✓ **Integrated Planning Process**
    - Legacy and Future Requirements
    - Linking Acquisition Strategies To Industrial Base Preparedness Planning
  - ✓ **Flexible, Agile Production Base**
    - Minimize Base Ownership, Consolidate To Realize Efficiencies
    - Emphasize Prototyping Capability Transfer & Technology Planning
    - Preserve Critical Core Capabilities



# Summary

- PEO Ammo is committed to providing superior ammunition to the soldier
  - ✓ Increased Precision
  - ✓ Extended Range
  - ✓ Reduced Collateral damage
  - ✓ Increased Survivability
  - ✓ Reduced Logistics Footprint

